

AMENDMENTS TO THE CLAIMS

1. (Previously Amended) An improved precipitation sensor to sense the presence of water upon an automotive glass of the type having an optical emitter, an optical receiver, a first mirror surface for collimating light emitted from said optical emitter and having a first leading edge, a second mirror surface for focusing said emitted light upon said optical receiver and having a second leading edge, and an electronic circuit in electrical communication with said optical emitter and said optical receiver, the improvement comprising:

said precipitation sensor including an intermediate reflector having a first reflective region proximate said emitter and a second reflective region proximate said receiver;

said second mirror surface being aspheric and positioned to focus said emitted light upon said receiver;

said second reflective region having a second mean reflective point being displaced from said automotive glass at a distance at least as great as a distance said second leading edge of said second mirror surface is displaced from said automotive glass;

said second leading edge laterally disposed such that said second mirror surface is positioned between said receiver and substantially all ambient light exiting from said automotive glass toward said receiver.

Claims 2-4 (Canceled)

5. (Previously Amended) The improved precipitation sensor of claim 1, further comprising:

said first reflective region being adapted to substantially pass light falling upon said first reflective region at angles not giving rise to total reflection.

6. (Previously Amended) The improved precipitation sensor of claim 1, further comprising:

said second reflective region being adapted to substantially pass light falling upon
said second reflective region at angles not giving rise to total reflection.

7. (Previously Amended) The improved precipitation sensor of claim 1 further comprising:

said first reflective region having a first mean reflective point being displaced from
said automotive glass at a distance at least as great as a distance said first
leading edge of said first mirror surface is displaced from said automotive glass.

Claim 8 (Canceled)

9. (Previously Amended) The improved precipitation sensor of claim 1, further comprising:

a working optical path from said emitter to an optical notch to said first mirror
surface to said first reflective region to an outer surface of said automotive glass
to said second reflective region to said second mirror surface to said receiver.

10. (Original) The improved precipitation sensor of claim 9, further comprising:
said working optical path being substantially within solid optical elements.

11. (Original) The improved precipitation sensor of claim 1, further comprising:
said intermediate reflector including a field regulator.

Claims 12 and 13 (Cancelled)

14. (Original) The improvement of claim 11 wherein:
said field regulator comprises at least one cone.

15. (Original) The improvement of claim 1 wherein:
said first mirror surface, said second mirror surface, and said intermediate reflector
comprise a single optical unit.

Claims 16-37 (Cancelled)

38. (Previously Amended) A method for detecting water upon an automotive glass comprising the steps of:

- emitting light upon a first aspheric mirror surface;
- collimating said light;
- reflecting said light with a first reflective region;
- reflecting said light with a windshield;
- reflecting said light with a second reflective region;
- shielding a receiver from ambient light with a second aspheric mirror surface; and,
- reflecting said light with said second mirror surface upon said receiver.

39. (Previously Presented) The method for detecting water upon an automotive glass of claim 38, wherein said emitted light being in the visible range.

40. (Previously Presented) The method of claim 38 further comprising the step of:
emitting light through an optical notch.

Claims 41-42 (Cancelled)